

independence, and after five days from their first exit the parent fish treated them as though the time had come for them to look after themselves; and soon after he took no further trouble with them, except in the way of fighting any supposed enemy that was introduced into the tank.

"I may add that I have since observed other fish, with the same result: I mean, of course, other Chromides."

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XLIII.—*The Nomenclature of European Helices.*

By HENRY A. PILSBRY, Sc.D.

PERSONS acquainted with the literature of European land-snails are aware that during the last century an almost incredible number of generic and subgeneric names were bestowed upon the Helices. Up to this time hardly two authors can be found who use the same set of generic names for these mollusks, save perhaps those who adhere to Lamarckian simplicity.

When writing my book upon Helices\*, I found that there was no standard or established classification or nomenclature; and while the formulation of a new and, I believe, phylogenetic classification was what chiefly interested me, I thought it also essential that the nomenclature be placed upon a secure basis. My results, so far as classification is concerned, have met with some approval from those best qualified to judge; but various protests have been made against the changes in generic nomenclature. The appearance of a criticism of some seventeen pages' length, from the pen of the well-known German conchologist Dr. O. von Möllendorff†, calls for the reply which I have not felt needful in the case of less conspicuous criticisms. Controversy over names is a notoriously barren employment.

Dr. v. Möllendorff rightly reports that in bringing together a number of old sectional and group names under a single generic head, I have selected for such generic name that of the oldest-published group involved. This principle, he goes on to say, is in his opinion to be discarded (1*a*) if the oldest group-name is based upon an extreme form of the genus, in which case he would select a later name for the genus, and one based upon a species of medium development for the

\* "Guide to the Study of Helices," *Manual of Conchology*, (2) ix. (1894).

† "Ueber einige Nomenclaturfragen," in *Nachrbl. d. D. malak. Gesellsch.*, December 1900, pp. 161-178.

group; (1 *b*) it is premature to follow the strict rule of priority when the earliest name was based upon a species not positively known to belong to the genus as built up; (2) the rule of giving page-priority in the case of two or more names for the same group, appearing in one book, he does not recognize, but would select the supposedly most typical from among such names; (3 & 4) after discussing the question of names applied to composite groups, such as those of almost all old authors, Dr. v. Möllendorff states that he considers a generic name preoccupied only when a prior homonym is actually in use.

To these proposed exceptions to the strict rule of priority I would reply that any exception gives opportunity for those individual differences of opinion which it is the sole purpose of rules of nomenclature to obviate. Exception (1 *a*) opens the door to endless discussion as to what is or is not an aberrant species. To my mind the examples cited by von Möllendorff are not such. Thus, *Helicigona lapicida* is typical of its genus in soft anatomy, and aberrant in a single character of the shell alone, *i. e.* the carination. Is a specific character of this sort enough to cause us to disregard the rule of priority? And, then, who is to decide upon what is the natural type of a genus? for here theoretical considerations will rule. I grant the force of the objection no. (1 *b*); it applies, however, to no European Helicidæ. Regarding exception (2) it should be said that if page-priority be rejected there is absolutely no rule to cover cases of two or more names for one group in one book. I therefore hold that, as Jordan says, "in case of twins, primogeniture controls." Objection no. (4) seems to me to be wholly impossible of application. How are we to tell whether a name proposed in Coleoptera, for instance, will not become a valid genus, even if now temporarily relegated to synonymy? We are constantly taking up and using names long supposed to be synonyms. The concrete cases discussed by v. Möllendorff are as follows:—

*Xerophila, Helicella.*

This is a case of unusual difficulty, from the fact that all the early authors placed the species of the modern genus in company with many really diverse forms. Whether I took the best course in using the name *Helicella* remains open to doubt. At all events, the supposed use of that name, prior to Férussac, alleged by von Möllendorff, is easily disposed of. In his 'Extrait du Cours de Zoologie,' 1812, p. 115, Lamarck enumerates the genera of Colimacés—*Hélice*,

*Hélicelle*, *Hélicine*, *Maillot*, &c.,—but defines none of them, and gives no Latin names. Blainville, in his 'Manuel' of 1825, also mentions *Hélicelle*, Lam., for *Helix obvoluta*, but he too fails to Latinize the French vernacular name. This leaves the way clear for Risso's restriction of *Helicella*, Fér., in 1826.

However, the real point is that we do not know the date of Férussac's 'Prodrome' with certainty, while I have shown that Gray in 1821 proposed the name *Jacosta* for a species of the genus\*. It may well prove that in this case my decision will require revision or reversal; but if so, the name in common use, *Xerophila*, can in no case be used for the group, as it dates from 1837.

### *Hygromia*, *Fruticicola*, *Trichia*.

Dr. von Möllendorff agrees with me that *Hygromia* should stand for the genus commonly known under one or other of the above names; but he prefers Férussac's form *Hygromanes*. As I have elsewhere held, this was intended for a noun in the plural and is not acceptable, besides being a heterogeneous section never yet restricted. I therefore adhere to Risso's name *Hygromia*.

Regarding the use of the subgeneric term *Trichia*, I would say that *Trichia*, de Haan, bears the date of 1841, not 1850, as von Möllendorff seeks to prove †. This leaves the priority with *Trichia*, Hartmann, 1840. But it seems to me that *Fruticicola* of Held, 1837, should have preference on account of its earlier date. Von Möllendorff states that the first species of *Fruticicola* was *fruticum*, Müll., "Erste Art ist *fruticum*, Müll., so dass eigentlich *Fruticicola* für *Eulota* einzutreten hätte"; but had the original article by Held in the 'Isis' been consulted, it would have been seen that *fruticum* is not the first but the *seventeenth* species in Held's list. As *H. fruticum* was eliminated from the group by Hartmann three years later, the misgivings expressed by von Möllendorff lest I should unsettle the name *Eulota* are groundless.

One of the very few cases where I could not consult an original work, and quoted at second-hand, was in the use of Schlüter's name *Perforatella*. I procured the original work a year or two ago, and find that Westerlund, whom I

\* Cf. Man. Conch. ix. p. 258, and Proc. Acad. Nat. Sci. Philad. 1897, p. 359, under *H. chionobasis*.

† The Crustacea of the 'Fauna Japonica' appeared in parts, the first issued in 1833, the last in 1850. *Trichia* was in "decas quinta 1841" (p. 109). The dates are printed at the foot of the first page of each fascicle.

followed, was wrong; and the re-arrangement tabulated by von Möllendorff (p. 171) is to be substituted for mine.

#### *Helicodonta, Gonostoma.*

Any attempt to overthrow *Helicodonta* in favour of *Gonostoma* will be seen to be futile when it is really understood that (1) *Helicodonta* of Férussac, proposed for Helices with toothed or sinuous mouths, was restricted by Risso, in 1826, to the single species *obvoluta*; and (2) *Gonostoma*, Held, 1837, is preoccupied by *Gonostoma*, Rafinesque, 1810, a name in common and accepted use by ichthyologists (see Günther, 'The Study of Fishes,' p. 629, 1880). There is a genus *Helicodon* in the Tankerville Catalogue, p. 35 (1825), which includes species of *Polygyra*, *Sagda*, *Anostoma*, *Cepolis*, and *Pleurodonte*.

#### *Campylæa, Helicigona.*

It is admitted that my use of *Helicigona* for the *Campylæa* group of Europe is justified, but von Möllendorff contends that Mörch deserves the credit for such use. This may be true: Mörch was a good and great conchologist in his day and generation, and I am only sorry that he did not convince everybody that they should adopt *Helicigona*. It is claimed that I erred in putting the carinated *H. lopicida* in a section by itself, whereas it should be included with the unkeeled *H. cornea*. This is a matter of opinion, upon which no one could wish to dogmatize; but one would not suppose that a writer who considers *Plectotropis* a distinct genus from *Ægista* on account of the keel (there are no anatomical differences) would criticize the course I have taken.

In conclusion, von Möllendorff suggests that, in pursuance of his rule no. 3, the genus might be called "*Campylæa* (Beck) v. Iher." This course would oppose the rule of priority, and is further open to objection from the fact that v. Ihering included the American *Epiphragmophora* species in *Campylæa*, although I have shown that they are widely different anatomically.

#### Section *Otala*, Schumacher, 1817.

After some discussion of the limits of this group and of my use of the term *Otala*, Dr. von Möllendorff has cast doubt upon what I expressly and, I think, advisedly stated to be the facts in the case. I said ('Manual,' p. 323): "The name *Otala* was proposed for three species, placed in two sections. Section *a* contained *hamastoma* (which being the

type of a prior genus must be eliminated) and *atomaria*, a new name for *lactea*, Müll. Section *b* contained the *Helix sulcata* of Müller, a form which Swainson, in 1840, made the type of his group *Plicadomus*. These eliminations leave *H. lactea* the valid nucleus of Schumacher's group. . . . Beck's use of *Otala* has no bearing upon the case, as he included none of Schumacher's species in his group."

Against this von Möllendorff quotes from Herrmannsen and Beck, as he had not seen Schumacher's work; and after further remarks concludes to use the name *Marmorana*, Hartmann, for the group, placing "*Otala*, Pilsbry," as a synonym thereto.

This conclusion cannot, however, be maintained, since *Marmorana* was based upon the species *serpentina*, which belongs *not to the group under discussion*, but to *Iberus*. Hartmann's sole reference to *Marmorana* is the passage (*apropos* of a certain malformation) which reads: "Herr Graf Porro hielt sie für sehr merkwürdig und sandte mir mehrere solche von unserer *Euparyphia*, auch von *Marmorana serpentina*; wirklich ist die Ursache dieser abnormen Fortsetzung schwierig zu ermitteln," &c. Thus was *Marmorana* established. And von Möllendorff gravely concludes: "Danach würde *Marmorana* auf die Formenkreise von *vermiculata* und *lactea* zu beschränken sein"!

#### XLIV.—Some Questions of Myriopod Nomenclature.

By R. I. POCKOCK.

##### 1. Leach's Species of the Genus *Geophilus*.

THE genus *Geophilus*, Leach, originally contained the following species:—*carpophagus*, *subterraneus*, *acuminatus*, *longicornis* (Tr. Linn. Soc. xi. pp. 384–386, 1819). One of these must be the type of the genus. *Longicornis* was taken out by Newport (Proc. Zool. Soc. 1842, p. 180) as the type of *Necrophlæophagus*. In 1845 (Tr. Linn. Soc. xix. p. 429 &c.) Newport substituted *Arthronomalus* for *Necrophlæophagus*, and added the following species:—*punctiventris*, *carpophagus*, *similis* (= *carpophagus*), *Hopei*, *flavus*, and *opinatus*. Since Newport expressly states that he changed *Necrophlæophagus* for *Arthronomalus*, the two must be regarded as synonymous in the strictest possible sense of the term—that is to say, as having the same type species. It is superfluous, therefore, to pursue further the fate of the remaining species included under *Arthronomalus* with a view to ascertaining if one of